

REMARKS

Claims 2, 13-16 and 18 are rejected under U.S.C. 112, second paragraph, claims 1, 11, 13 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,861,608 to Koduri et al. (hereinafter "Koduri"), and claims 3, 5-10, 14, 15, 17, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koduri. Claims 4, 12, and 19 are objected to.

The rejections are respectfully traversed in light of the amendments above and the following remarks, and reconsideration is requested.

Rejections under 35 U.S.C. 112, second paragraph

Claims 2, 13-16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states that the "phrase 'handled in the same manner as' is unclear and vague. One of ordinary skill in the art would not be able to determine what action or actions are encompassed by this terminology."

Claim 2 is amended to recite that "the output adapter frame is handled in the same manner during the die sorting process as a standard output wafer frame". Support for the amendment is found in Applicants' specification at page 3, lines 9-26. Thus, no new matter is added. Applicants believe it is clear to one of ordinary skill in the art how a standard or conventional output wafer frame is handled. Claim 2 recites that the output adapter frame is handled in the same manner, e.g., same mechanism for moving the frame. (See page 11, lines 4-7).

Accordingly, Applicants believe claim 2 is definite and distinctly claims the subject matter of the invention.

Claims 13 and 18 are similarly amended. Claims 14-16 depend on claim 13.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. 112.

Rejections under 35 U.S.C. 102(e)

Claims 1, 11, 13 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Koduri.

In rejecting claims 1 and 13, the Examiner states, in part, that “Koduri disclose an output frame (waffle pack 30) for a die sorter comprising . . . a retention mechanism (the grid matrix retains the dies by holding them between the wall members) for each of the plurality of die carriers, wherein the retention mechanism is along a side of the channel and biases the die carrier against the opposing side of the channel.”

Koduri discloses waffle packs 30 having a plurality of pockets 32, “each pocket 32 capable of accommodating an individual chip.” (Koduri, col. 6, lines 52-57; Fig. 4). The wafer packs 30 “may be any suitable size such as, and without limitation, 2”x2” or 4”x4”.” (Koduri, col. 6, lines 53-55). This is simply a conventional waffle pack for holding individual chips. Further, as stated by Koduri, the “waffle packs 30 preferably comprises a plastic matrix tray for holding a chip.” Thus, as stated by the Examiner, the walls of the grid are what retain the individual chips.

In contrast, claim 1 is amended to recite “a retention mechanism . . . [that] actively biases the die carrier against the opposing side of the channel”. Support for the amendment is found in Applicants’ specification at page 8, line 12 to page 10, line 2. Thus, no new matter is added. A spring loaded clip, or the like, actively biases the die carrier against the opposing

channel wall within the adapter frame. This enables die carriers of different sizes to be firmly held in place within the output adapter frame. In the waffle pack of Koduri, by contrast, the chips are placed within pockets that are invariably at least a small amount larger than the maximum die chip size, so as to ensure that the die can lie flat in the pockets. However, no retention mechanism is included for each such pocket of the grid matrix to ensure that the die is securely and actively biased against an opposing wall of the pocket, and there is consequently some small degree of free movement possible.

Furthermore, claim 1 recites that “the channel holds a plurality of die carriers”. Die carriers can be waffle packs, such as the ones disclosed in Koduri. Thus, the output adapter frame recited in claim 1 can carry multiple die packs or waffle packs, while Koduri discloses a waffle pack for carrying multiple die.

Therefore, Applicants believe claim 1 is patentable over Koduri.

Independent claim 13 is amended to recite “a plurality of approximately square recesses, each square recess capable of holding one square die carrier”. Support for the amendment is found in Applicants’ specification at page 12, lines 22 to 25. Thus, no new matter is added. As clearly set forth, the output adapter frame of claim 13 is for carrying a plurality of square die carriers, such as the waffle carrier of Koduri. In contrast, Koduri discloses a waffle carrier for carrying a plurality of die. Accordingly, the waffle pack of Koduri is very different than the output adapter frame to carry multiple waffle packs of Applicants’ invention.

Therefore, Applicants believe claim 13 is patentable over Koduri.

Claim 11 depends on claim 1, and claim 16 depends on claim 13, and are thus both patentable over Koduri for at least the same reasons as claims 1 and 13 above.

Consequently, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. 102(e).

Rejections under 35 U.S.C. 103(a)

Claims 3, 5-10, 14, 15, 17, 21 and 22 are rejected under 35 U.S.C. 103(a) over Koduri.

Claims 3, 5-10, 14, and 15 depend on claims 1 and 13 and are therefore patentable over Koduri for at least the same reasons as claims 1 and 13 discussed above.

Independent claim 17 has been amended to recite “at least . . . one retention mechanism that actively biases the die carriers against an opposing side of the recess”.

Therefore, for reasons similar to claim 1, claim 17 is patentable over Koduri.

In addition, Applicant points out that in Koduri, element 11 in Figures 1 and 4 is disclosed as a wafer, not a wafer frame, which would hold a wafer, dice or a carrier containing a plurality of die, or a plurality of carriers, each containing a plurality of die. Furthermore, in Koduri, element 102 is a station at which pick and place operations proceed, not a wafer frame handler for purposes of load/unload transfer. Additionally, in Koduri, element 30 is a waffle pack, which is handled individually, and not a frame adapted to transport a plurality of waffle packs. Element 106 in Koduri is a station for holding waffle packs during a pick and place operation, and not a machine or structure for loading or unloading, which function and structure is only generally described by Koduri as a machine 100 with at least three work stations. No details of transfer (i.e., load/unload) operations of a simultaneous plurality of die or waffle pack carriers is disclosed. Therefore, for these additional reasons, claim 17 is believed patentable over Koduri.

Claims 21 and 22 depend on claim 17 and are thus patentable for at least the same reasons as claim 17. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. 103(a).

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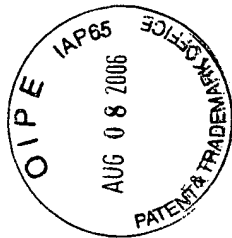
Objected to Claims

Claims 4, 12, and 19 were objected to for being dependent upon a rejected base claim.

Claims 4, 12 and 19 depend on independent claims 1 and 17, which are believed to be allowable as discussed above, thereby obviating the claim objections. .

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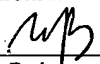
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CONCLUSION

For the above reasons, pending Claims 1-22 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicants' Attorney at (949) 752-7040.

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.


Monique M. Butler

August 3, 2006
Date of Signature

Respectfully submitted,



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